





## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James S. Norris et al.

Art Unit : 1635

Serial No.: 10/082,973 Filed

Examiner: Unknown

NOV 0 8 2002

: February 26, 2002

Title TISSUE-SPECIFIC AND TARGET RNA-SPECIFIC RIBOZYMES

TECH CENTER 1600/2900

Commissioner for Patents Washington, D.C. 20231

## INFORMATION DISCLOSURE STATEMENT

Applicant submits the references listed on the attached form PTO-1449.

Under 35 USC §120, this application relies on the earlier filing date of application serial number 09/338,942, filed on June 24, 1999. The references listed on the form PTO-1449 were submitted to and/or cited by the Patent Office in the prior application and, copies therefore, are not provided in this application.

This statement is being filed within three months of the filing date of the application or before the receipt of a first Office action on the merits. Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: October 31, 2007

atrick Finn III, Ph.D.

Reg. No. 44,109

Fish & Richardson P.C., P.A. 60 South Sixth Street **Suite 3300** Minneapolis, MN 55402

Telephone: (612) 335-5070 Facsimile: (612) 288-9696

60111587.doc

#### CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

Date of Deposit

Signature

Trisha J. Anderson

Typed or Printed Name of Person Signing Certificate



# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: James S. Norris et al.

Art Unit : 1635

RECEIVED

Serial Nc.: 10/082,973

Examiner: Unknown

NOV 0 8 2002

Filed

: February 26, 2002

Title : TISSUE-SPECIFIC AND TARGET RNA-SPECIFIC RIBOZYMES

**TECH CENTER 1600/2900** 

Commissioner for Patents Washington, D.C. 20231

## TRANSMITTAL

The following correspondence relating to this application is enclosed for filing:

- 1. Information Disclosure Statement (1 page);
- 2. Form PTO-1449 (4 pages); and
- 3. A Return Postcard.

Please date stamp and mail the enclosed postcard.

Please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Mitaber 31,200

J. Patrick Finn III, Ph.D.

Reg. No. 44,109

Fish & Richardson P.C., P.A. 60 South Sixth Street

**Suite 3300** 

Minneapolis, MN 55402 Telephone: (612) 335-5070 Facsimile: (612) 288-9696

60111613.doc

#### CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

Date of Depo

Signature

Trisha J. Anderson

Typed or Printed Name of Person Signing Certificate

#8/I.D.S

Sheet <u>1</u> of <u>4</u>

ຖຽງປ່ອນເປັນte Form PTO-1449 (Modified) ,

U.S. Department of Commerce Patent and Trademark Office

Attorney's Docket No. 14017-004002

Application No.

**Information Disclosure Statement** by Applicant (Use several sheets if necessary)

Applicant James S. Norris et al.

February 26, 2002

10/082,973

Filing Date

Group Art Unit 1635

(37 CFR §1.98(b))

			U.S. Pate	ent Documents				ı
Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate	ı
	AA	5,166,057	11/24/92	Palese et al.		_		
	AB	5,294,533	03/15/94	Lupski et al.			ECEIVE	ニリ
	AC	5,436,330	07/25/95	Taira et al.			NOV 0 8 20	02
	AD	5,500,357	03/19/96	Taira et al.				- 10000
	AE	5,578,473	11/26/96	Palese et al.		TE(	H CENTER 160	012900
	AF	5,670,488	09/23/97	Gregory et al.				
	AG	5,824,519	10/20/98	Norris et al.				
	AH	5,912,149	06/15/99	Ruiz et al.				
	AI	09/291,902		Norris et al.			04/14/99	
	AJ	09/319,395		Norris et al.			06/03/99	

	Foreig	n Patent Doc	uments or P	ublished Foreign F	Patent /	Application	าร	
Examiner	Desig.	Document	Publication	Country or			Translation	
Initial	ID	Number	Date	Patent Office	Class	Subclass	Yes	No
	AK	0 640 688	03/01/95	EPO				
	AL	WO 90/00624	01/25/90	PCT				
	AM	WO 92/10590	06/25/92	PCT				
	AN	WO 94/03594	02/17/94	PCT				
	AO	WO 95/07923	03/23/95	PCT				
	AP	WO 97/17433	05/15/97	PCT				
	AQ	WO 97/17458	05/15/97	PCT				
	AR	WO 98/17815	04/30/98	PCT				
	AS	WO 98/17816	04/30/98	PCT				
	AT	WO 98/17817	04/30/98	PCT				
	AU	WO 98/24925	06/11/98	PCT				
	AV	WO 99/67400	12/29/99	PCT				

	Other Documents (include Author, Title, Date, and Place of Publication)				
Examiner	Desig.				
Initial	ID	Document			
Examiner Sign	Date Considered				
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.					

Application No. Attorney's Docket No. 10/082,973 14017-004002 Applicant James S. Norris et al. Filing Date Group Art Unit 1635 February 26, 2002

在om PTO-1449

U.S. Department of Commerce Patent and Trademark Office **Information Disclosure Statement** 

by Applicant (Use several sheets if necessary)

(37 CFR §1.98(b))

	Other D	ocuments (include Author, Title, Date, and Place of Publication)
Examiner	Desig.	<u> </u>
Initial	ID	Document
	AW	Bassford et al., "The Primary Pathway of Protein Export in E. Coli," Cell, 1991, 65:789-796, 30:367-368
	AX	Bertrand et al., "Can hammerhead ribozymes be efficient tools to inactivate gene function?" <u>Nucleic Acids Resonant.</u> , 1994, 22(3):293-300
	AY	Bouche et al., "dnaG gene product, a rifampicin resistant RNA polymerase, initiates the conversion of a single stranded coliphage DNA to its duplex replicative form," J. Biol. Chem., 1975, 250:5995-6001
	AZ	Branch, "A good antisense molecule is hard to find," TIBS, 1998, pp. 47-48
	AAA	Castanotto et al., "Antisense Catalytic RNAs as Therapeutic Agents," <u>Adv. Pharmacol.</u> , 1994, 25:289-317
	ABB	Christoffersen et al., "Ribozymes as human therapeutic agents," <u>J. Med. Chem.</u> , 1995, 38(12):2023-2037
	ACC	Clawson et al., "Focal altered compartmentation of repetitive B2 (Alu-like) sequences in rat liver following hepatocarcinogen exposure," Cell Growth Differ., 1996, 7(5):635-646
	ADD	Colberre-Garapin et al., "A new dominant hybrid selective marker for higher eukaryotic cells," <u>J. Mol. Biol.</u> , 1981, 150(1):1-1
	AEE	Crooke, "Basic Principles of Antisense Therapeutics," <u>Antisense Research and Applications</u> , 1998, Springer-Verlag Press, Berlin, Heidelber, New York, Chapter 1, p. 3
	AFF	Felgner et al., "Lipofection: a highly efficient, lipid-mediated DNA-transfection procedure," <u>Proc. Natl. Acad. Sci. USA</u> , 1987, 84:7413
	AGG	Gewirtz et al., "Facilitating oligonucleotide delivery: helping antisense deliver on its promise," <u>Proc. Natl. Acad. Sci. USA</u> , 1996, 93:3161-3163
	АНН	Greenberg et al., "The rat probasin gene promoter directs hormonally and developmentally regulated expression of a heterologous gene specifically to the prostate in transgenic mice," Mol. Endo., 1994, 8(2):230-239
	AII	Haseloff et al., "Simple RNA enzymes with new and highly specific endoribonuclease activities," <a href="Nature">Nature</a> , 1988, 334:585-591
	AJJ	Inokuchi et al., "A hammerhead ribozyme inhibits the proliferation of an RNA coliphage SP in Escherichia coli," J. Biol. Chem., 1994, 269(15):11361-11366
	AKK	Koizumi et al., "Design of RNA enzymes distinguishing a single base mutation in RNA," <u>Nucl.</u> <u>Acids Res.</u> , 1989, 17(17):7059-7071
	ALL	Lehnherr et al., "Plasmid addiction genes of bacteriophage P1: doc, which causes cell death on curing of prophage, and phd, which prevents host death when prophage is retained," <u>J. Mol. Biol.</u> , 1993, 233:414-428
	AMM	Major et al., "The combination of symbolic and numerical computation for three-dimensional modeling of RNA," Science, 1991, 253:1255-1260
	ANN	Marians, "Replication Fork Propagation," <u>Escherichia coli and Salmonella: Cellular and Molecular Biology</u> , 2 <sup>nd</sup> Edition, Vol. 1, Neidhard (ed.), American Society for Microbiology, Washington, D.C., 1996, pp. 749-763
	AOO	Merril et al., "Long-circulating bacteriophage as antibacterial agents," <u>Proc. Natl. Acad. Sci. USA</u> , 1996, 93(8):3188-3192
	APP	Meyer et al., "Search for a putative scrapie genome in purified prion fractions reveals a paucity of nucleic acids," J. Gen. Virol., 1991, 72:1031-1038

Examiner	Signature
----------	-----------

**Date Considered** 

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

			Sneet	- <b></b> 20°	1 4
Substitute Form PTO-1449  (Modified)  U.S. Department of Commerce Patent and Trademark Office		Attorney's Docket No. 14017-004002	Application No. 10/082,973	VE N	2002
ر Inf rmation Disclosure Statement و م 2002 م by Applicant		Applicant James S. Norris et al.		Ü	0 .8
(Use several s (37 CFR §1.98(b))	sheets if necessary)	Filing Date February 26, 2002	Group Art Unit 1635	Ē	NOV

(	Other Documents (include Author, Title, Date, and Place of Publication)					
Examiner Initial	Desig. ID	Document				
	AQQ	Miller et al., "Progress in transcriptionally targeted and regulatable vectors for genetic therapy," Hum. Gene Ther., 1997, 8:803-815				
	ARR	Nicolau et al., "Liposomes as carriers for in vivo gene transfer and expression," Methods Enzymol. 1987, 149:157				
	ASS	Ohkawa et al., "Activities of HIV-RNA targetter ribozymes transcribed from a 'shot-gun' type ribozyme-trimming plasmid," Nucl. Acids Symp. Ser., 1992				
	ATT	Ohme-Takagi, "In vivo RNA transcript-releasing plasmid possessing a universal pseudo-terminatory by means of artificial ribozymes," Nucl. Acids Symp. Ser., 1990, 22:49-50				
	AUU	Ohta et al., "Tissue-specific expression of an anti-ras ribozyme inhibits proliferation of human malignant melanoma cells," Nucl. Acid Res., 1996, 24(5):938-942				
	AVV	Pace and Smith, "Ribonuclease P: function and variation," J. Biol. Chem., 1990, 256(7):3587-3590				
	AWW	Palese et al., "Negative-strand RNA viruses: genetic engineering and applications," <u>Proc. Natl.</u> Acad. Sci. USA, 1996, 93:11354-11358				
	AXX	Poulsen et al., "The gef gene from Escherichia coli is regulated at the level of translation," Mol. Microbiol., 1991, 5:1639-1648				
	AYY	Schmidt et al., "Regulation of Escherichia coli secA mRNA translation by a secretion-responsive element," J. Bacteriol., 1991, 173(20):6605-6611				
	AZZ	Schmidt and Delihas, "micF RNA is a substrate for Rnase E," <u>FEMS Microbiol. Lett.</u> , 1995, 133(3):209-213				
	AAAA	Slopek et al., "Results of bacteriophage treatment of suppurative bacterial infections in the years," Arch. Immunol. Ther. Exp. (Warz), 1987, 35:569-583				
	ABBB	Soothill, "Treatment of experimental infections of mice with bacteriophages," <u>J. Med. Microbiol.</u> , 1992, 37(4):258-261				
i	ACCC	Sternberg, "Recognition and cleavage of the bacteriophage P1 packaging site (pac) II. Functional limits of pac and location of pac cleavage termini," J. Mol. Biol., 1987, 194(3):469-479				
	ADDD	Stull et al., "Antigene, ribozyme and aptamer nucleic acids drugs: progress and prospects," Pharm. Res., 1995, 12(4):465-483				
	AEEE	Sullivan et al., "Development of ribozymes for gene therapy," J. Invest. Dermatol., 1994, 103:85S-95S				
	AFFF	Taira et al., "Construction of a novel RNA-transcript-trimming plasmid which can be used both in vitro in place of run-off and (G)-free transcriptions and in vivo as multi-sequences transcription vectors," Nucl. Acids Res., 1991, 19(9):5125-5130				
	AGGG	Taira et al., "Construction of several kinds of ribozymes their reactivities and utilities," Gene Regulation, Biology of Antisense RNA and DNA, pp. 35-54				
	АННН	Taira et al., "Construction of a novel artificial-ribozyme-releasing-plasmid," <u>Protein Eng.</u> , 1990, 3(8):733-737				
	AIII	Templeton et al., "Improved DNA: liposome complexes for increased systemic delivery and gene expression," Nature Biotechnol., 1997, 15:647-652				
	AJJJ	Uhlenbeck, "A small catalytic oligoribonucleotide," Nature, 1987, 328(6131):59				
<del></del>	AKKK	Usman et al., "Design, synthesis, and function of therapeutic hammerhead ribozymes," Nucl. Acid Biol., 1996, 10:243-264				

Examiner Signature	Date Considered
EXAMINER: Initials citation considered. Draw line through citation if no	t in conformance and not considered. Include copy of this form with
next communication to applicant.	· · · · · · · · · · · · · · · · · · ·

,	Shee	t 🕰		1600/2900
Attorney's Docket No. 14017-004002	Application No. 10/082,973	<b>/</b>	8 2002	1600
Applicant James S. Norris et al.		Œ	0 >	CENTER
Filing Date February 26, 2002	Group Art Unit 1635	ני	0 N	]       
itle Date and Blace	of Bublication	2)		二世

	Other Documents (include Author, Title, Date, and Place of Publication)					
Examiner	Desig.					
Initial	ID	Document				
	ALLL	Vieweg et al., "Efficient gene transfer with adeno-associated virus-based plasmids complexed to cationic liposomes for gene therapy of human prostate cancer," Cancer Res., 1995, 55:2366-2372				
	AMMM	Whitton, "Antisense Treatment of Viral Infection," Adv. Virus Res., 1994, p. 44				
	ANNN	Wigler et al., "Transfer of purified herpes virus thymidine kinase gene to cultured mouse cells," Cell, 1977, 11:223				
	A000	Wigler et al., "Transformation of mammalian cells with an amplifiable dominant-acting gene," <u>Proc.</u> Natl. Acad. Sci. USA, 1980, 77:3567				
	APPP	Yuyama et al., "Construction of a T-RNA-embedded-ribozyme trimming plasmid," <u>Biochem.</u> <u>Biophys. Res. Comm.</u> , 1992, 186(3):1271-1279				
	AQQQ	Zhou et al., "Expression of hammerhead ribozymes by retroviral vectors to inhibit HIV-1 replication: comparison of RNA levels and viral inhibition," <u>Antisense &amp; Nucleic Acid Drug Development</u> , 1996, 6:17-24				

U.S. Department of Commerce Patent and Trademark Office

**Information Disclosure Statement** 

**by Applicant** (Use several sheets if necessary)

Examiner Signature

Sustitute Form PTO-1449 (Modified)

§1.98(b))

0 7 2002

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Date Considered